State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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March 11, 1996

Hand Delivered
4-10-96

William and Preston Bown
Utah Building Stone Supply
842 West 400 North
Bountiful, Utah 84087

Re: Plan Review, Utah Building Stone Supply Company, Lynn Springs Quarry, M/003/025, (USFS File Code 2810), Box Elder County, Utah

Dear Mr. Bown:

The Division has completed a review of your Large Mining Operations Notice of Intention (NOI-LMO) for the Lynn Springs Quarry, located in Box Elder County, Utah, which was received December 11, 1995. Other items which were reviewed as part of the NOI included the following documents: Attachment III-5 Cross Reference III-17, Request for Variance; Attachment VII - Surety; a facsimile copy of the Dec. 13, 1995, letter from Bill Bown to Gordon Struthers, USFS; a facsimile copy of the Dec. 14, 1995, letter from Bill Bown to Gordon Struthers including a soil survey map and portions of the soil survey text. These facsimile copies were provided to the Division by the USFS. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. Please note, you will not be allowed to expand your operation until these deficiencies are addressed and your plan is approved.

R647-4-105 - Maps, Drawings & Photographs

105.2 Surface facilities map

The map submitted is not adequate to determine acreage for all the areas to be disturbed. For example, measuring the south quarry area shown on the map gives approximately 2.9 acres (using a derived map scale of one inch equals 440 feet). The written description on the map describes this area as 1 acre (approximate). Please provide a revised version of the surface facilities map which shows the disturbed areas at the appropriate dimensions. The features on this map should agree with all the mine features as described in the text of the submission. The revised map should include both written and graphic scales, and a north arrow. Please label FS Road 021 on the map and use color or cross hatching to indicate the extent of this road. Please label all roads on this map as existing or proposed. The disturbed area

associated with any new roads will need to be added to the disturbed acreage total. As per correspondence with the Forest Service, it was estimated that the roads you will be required to reclaim (the access road from the Forest Service boundary gate and the roads between the pits) have affected 3.0 acres. AAG

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Please provide typical cross sectional drawings of new roads, pads, quarries, and waste rock areas.

A reclamation treatments map is needed. This map should cover all disturbances associated with this mining operation. The scale of this map should be similar to the scale of the surface facilities map. This map will need to show which roads will be reclaimed and which roads will remain as part of the post mining land use, which areas will be covered with salvaged soil, which areas are solid rock outcrop (areas where top soiling and seeding will not occur), which areas will be ripped, and which areas will receive other reclamation treatments such as mulch, fertilizer, and seeding. The areas receiving these various reclamation treatments should be identified on the map using different colors, cross hatching, shading, or line types. A key or legend should also be placed on the map describing the color coded and/or cross hatched reclamation treatment measures. AAG

R647-4-106 - Operation Plan

106.3 Estimated acreage disturbed, reclaimed, annually.

Your NOI identifies 10 acres of existing and proposed disturbance. However, as discussed above, 3.0 acres of road disturbance currently exists, not one (1) as identified in the plan. Also, there is an additional 0.5 acres that you have disturbed (the area that you were using as a work area) that needs to be included in the total acreage, until this area is successfully reclaimed. This amounts to approximately 12.5 acres of current and proposed disturbance. Your request to wait until there is 1 - 2 acres of disturbance before you conduct concurrent reclamation is acceptable provided that the area is stable, no sediment is leaving the site, and the public is protected from any hazardous situations. Please note that the total disturbance at the site cannot exceed the amount of disturbance identified in your reclamation surety.

106.5 Existing soil types, location, amount.

There area some soils that will need to be salvaged as you progress with your operation. Even one or two (1-2) inches is worth salvaging for reclamation success. You will need to provide a soil analysis of the soils at the quarry site and an analysis of the typical soils at the proposed millsite location. The soil analyses must include the following parameters: soil depth, texture, pH, SAR, EC, % organic matter, Cation Exchange Capacity, and fertility (Nitrogen, Phosphorus (as P_2O_5) and Potassium (as K_2O). You will also need to estimate the total volume of salvageable soil at each site.

106.6 Plan for protecting & redepositing soils

A small area is shown on the surface facilities map for topsoil storage. However, the plan does not indicate how the topsoil will be stockpiled, the extent (size) of stockpile(s), or how the stockpiles will be protected from further impacts. Please describe how the soil materials will be stockpiled and protected, and how you will reapply these soils at the time of reclamation. Also, please modify the map to show where the salvaged soils will be stockpiled at the millsite. The Division recommends interim seeding of the topsoil stockpiles.

106.7 Existing vegetation - species and amount

This section was not addressed. Before you develop any of the proposed roads, quarry areas, or millsite, you will need to provide the results of a vegetation survey which identifies the predominant vegetation of each area that will be disturbed and the percentage of vegetation ground cover. This information is also needed for each vegetation type that was presumed to exist for the current disturbed areas. The BLM and Forest Service may be able to assist you in obtaining this information. Otherwise, you may need to seek outside professional assistance and consultation to perform this assessment.

106.9 Location & size of ore, waste, tailings, ponds

Will there be any waste rock disposal at the mill site? If so, please show the size and location of the disposal sites on the map and provide an estimate of the volume of the waste materials to be produced.

R647-4-107 - Operation Practices

107.1 Public safety & welfare

107.1.14 Posting warning signs

Division rules require appropriate fencing, berming, and/or warning signs, if the mine site has hazards accessible to the public. Will there be a need to post warning signs at this operation? It is our understanding that the Forest Service will allow you to gate the access into the quarry site.

107.1.15 Constructing berms, fences, etc. above highwalls

Will the public have direct access to areas immediately above or below the highwalls? If so, please describe how the public will be protected from these potential safety hazards. If any safety structures (e.g., fences or berms, etc.) are proposed, please describe these structures and show their locations on the map.

107.3 Erosion control & sediment control

Please describe how you will minimize erosion and control sediment from leaving the site.

107.4 Deleterious material safety stored or removed

Will potentially deleterious materials be stored on site (this includes fuel, oil, grease, etc.)? Please describe the type and volume of these materials you may need to keep on site at any one time. How will these materials be controlled/contained in the event of an accidental spillage. If any of these materials will be stored on-site, supplemental containment measures must be provided to retain 100% of any potential spillage.

107.5 Suitable soils removed & stored

Refer to comments under R647-4-106.5 and .6.

107.6 Concurrent reclamation

Please refer to comments under R647-4-106.3.

R647-4-109 - Impact Assessment

109.3 Impacts on existing soil resources

See comments under R647-4-106.5 and 106.6.

109.4 Slope stability, erosion control, air quality, safety

Please describe the impacts the proposed mine operation will have on slope stability, erosion, air quality and public safety. If the proposed operation will not have any detrimental impacts, please explain why.

R647-4-110 - Reclamation Plan

110.2 Roads, highwall, slopes, drainages, pits, etc. reclaimed

Please describe how the new access road and the road between the two pits will be reclaimed. Please provide more details describing the reclamation of pits and highwalls. Will the pit/quarry be completely backfilled? Will pits be filled sufficiently to prevent them from impounding water? Will there be a highwall(s) remaining after final reclamation? If so, please describe its height and length. Please provide typical cross sections of reclaimed pads, pits, roads and highwalls in addition to your response to these questions.

110.3 Description of facilities to be left (post mining use)

It is the Division's understanding that all facilities associated with this project will be reclaimed and/or removed. A variance request must be made for any facilities which are proposed to remain after final reclamation is completed. Please refer to the variance section of the rules for a description of information required when requesting a variance.

110.4 Description or treatment/disposition of deleterious or acid forming material

See comments under R647-4-107.4

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

At this time, all new roads are to be reclaimed. Newly constructed roads must be reclaimed unless a variance is granted. A variance request would include documentation from the Forest Service (for roads on Forest Service lands), from the BLM (for roads on BLM lands), or from private land owners (for roads on private lands) indicating their request that the roads be left after mining ceases, and that they will assume responsibility for their continued use and maintenance.

110.5 Revegetation planting program

While the Division will grant variances to reseeding areas of the quarry where there is no soil material or fines that would support vegetation, all other areas will be required to be revegetated. It is expected that most of the quarry area will support vegetation if properly mulched and seeded. Please describe plans for seed bed preparation (including regrading or ripping), seeding, mulching, etc., for the areas of the mine site which will receive revegetation treatments. Attached is a recommended seed mix that can be used for reclamation purposes. If acceptable, please make it part of your plan. Otherwise, provide a seed mix that you plan to use for our review. Please note, the attached recommended seed mix has been reviewed by the BLM and the Forest Service and is acceptable to them.

R647-4-111 - Reclamation Practices

111.1 Public safety & welfare
1.15 Constructing berms/fences above highwalls

It is assumed that no highwalls will be left at an angle steeper than 45 degrees. Please confirm this assumption. If highwalls will be left, please describe their stability and how the public's safety will be protected (i.e. berms, fencing, etc.). Please identify these highwall areas on a map. A formal request for a variance will need to be made with appropriate justification, for any highwalls which are proposed to remain at angles steeper than 45 degrees.

111.3 Erosion & sediment control

What measures will be used to control erosion during the operations and at the time of reclamation?

111.4 Removal/storage of deleterious material

See comments under R647-4-107.4

111.6 All slopes regraded to stable configuration

Refer to comments under R647-4-110.2

111.7 Highwalls stabilized at 45 degrees or less

Refer to comments under R647-4-110.2 and 111.15.

111.8 All roads & pads reclaimed

Refer to comments under R647-4-110.2

111.12 Topsoil redistribution

Refer to comments under R647-4-106.6.

111.13 Revegetation-adaptable species

See comments under R647-4-110.5.

R647-4-112 - Variance

Variances have been requested for salvaging topsoil, respreading topsoil, seedbed preparation, reseeding, mulching, fertilizing and meeting the revegetation success standard. It is our impression that these variances are requested for the entire permit area. However, the narrative appears to apply only to the quarry area and not the millsite. At this point in time, the Division is not considering any variances for the millsite. An estimate will need to include all aspects of final reclamation of both the quarry and millsite. In addition, it will also need to reflect third party costs for each task, include mobilization of equipment, and include five years of escalation. Please note that the Forest Service will need to agree with the final surety estimate. The Forest Service has prepared a reclamation estimate for those disturbances located on Forest Service lands. Their estimate of reclamation costs for this operation is $10,700. The Division will rely heavily on this estimate for reclamation of those disturbances on Forest Service lands. Note: This estimate does not include the existing 0.5 acres of disturbance that presently exists on adjacent BLM administered land.

The Division will suspend further review of the Lynn Springs Quarry NOI until your response to this letter is received. Please note, *no new disturbances are to be made* even though they may be identified in your notice until the plan for this site is approved and surety is posted. If you have any questions in this regard please contact me, Tony Gallegos, Lynn Kunzler, or Tom Munson of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

jb
Attachment
cc: Gordon Struthers, USFS
Dan Washington, BLM
M003025.rvw

Recommended Revegetation Species List
for

Utah Building Stone
Lynn Springs Quarry
M/003/025

Prepared by DOGM January 23, 1996
(this mix was reviewed and OK'd by the Forest Service and BLM)

Common Name	Species Name	*Rate lbs/ac (PLS)
Thickspike wheatgrass	Agropyron dasystachum	2.0
Bluebunch wheatgrass	*Agropyron spicatum*	2.0
Intermediate wheatgrass	*Agropyron intermedium*	1.0
'Piute' orchard grass	*Dactylis glomerata*	0.5
Basin Wildrye	*Elymus cinereus*	1.5
Indian ricegrass	*Oryzopsis hymenoides*	1.5
Ladak Alfalfa	*Medicago sativa*	1.0
Yellow sweetclover	*Melilotus officinalis*	0.5
Palmer penstemon	*Penstemon palmeri*	0.5
Small burnet	*Sanguisorba minor*	1.5
Wyoming big sagebrush	*Artemisia tridentata wyomingensis*	0.1
Rubber Rabbitbrush	*Chrysothamnus nauseosus*	0.5
Forage kochia	*Kochia prostrata*	0.5
	Total	13.1 lbs/ac

*This the recommended drill seeding rate.
If the species are to be broadcast seeded, increase the rate by 50%.